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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/705,316

11/03/2000

David R. Battiste

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09/24/2003

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EXAMINER

DANG, THUAN D

ART UNIT

PAPER NUMBER

1764

DATE MAILED: 09/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Applicati n No.

09/705,316

Applicant(s)

BATTISTE, DAVID R.

Examiner

Thuan D. Dang

Art Unit

1764

-- The MAILING DATE f this communication appears on the cover sheet with the c rrespondenc address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 6 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation of "two or more fused silica fiber optic cables within a protective metal sheath" is a new matter (see the entire specification for details).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, "the catalyst system suitable for the oligomerization of olefin monomers" is indefinite since it is unclear which catalysts are considered to be suitable for the process?

Regarding claim 3, "the step of adjusting the olefin oligomerization process" is indefinite since it is unclear how the oligomerization process is adjusted. In other words, applicants should

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recite which parameters, such as pressure, temperature, concentration, feedstock, an specified parameter are adjusted.

The limitation of claim 6 cannot be interpreted (read claims).

Regarding first step (c) of claim 13, it is unclear where or when the first measurement is carried out.

Regarding second step (c) of claim 13 and claim 15, "at least one oligomerization condition" is indefinite since it is unclear which parameters are adjusted.

Note that there are two steps (c) in claim 13.

Steps (c) and (d) of claim 15 should be renamed since claim 15 is recited as further steps of claim 13 which have two steps (c).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Long et al (6,479,597).

Long discloses a polymerization process of olefins such as ethylene in the presence of a catalyst. The concentrations of reactor constituents are monitored in-situ and adjusted according to measurements which are made possible by Raman Spectroscopy (the abstract; figures 1, 2, 4, 9, 11, 12, 13, 16; col. 4, lines 10-11, 40-45, and 60-65).

Long does not disclose that the polymerization is an oligomerization which is known as a kind of polymerization producing polymers having larger product (see the entire patent for details). However, it is known that the molecular weight of the polymer depends on the degree of the polymerization.

It would have been obvious to one having ordinary skill in the art who wishes to produce oligomers at the time the invention was made to have modified the Long process by selecting appropriate degree of polymerization to produce oligomers such as hexane from trimerization of ethylene to arrive at the applicants' claimed process if hexene is desired.

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On column 4, lines 50-59, Long discloses that the process can be carried out in multi-reaction zones.

On column 4, line 60-65, Long discloses that hydrogen can be cofed.

Long does not discloses that resolution of the Raman equipment. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Long process by selecting appropriate wave lengths provided that wave lengths can be used to monitor the process.

#### *Response to Arguments*

Applicant's arguments filed on 6/30/03 have been fully considered but they are not persuasive.

The argument that applicant believe that when claim 1 is properly read in view of the description as a whole one of ordinary skill in the art will readily ascertain whether any particular catalyst system could be suitable is not persuasive since there are many different kinds of catalysts used in the industry. These different catalysts are known to be used for oligomerization and catalysts which until the time of this invention are not known able to be used for the oligomerization process. These un-known oligomerization catalysts are not disclosed by the specification. If so, clearly these catalysts cannot be decided. Therefore, the term "suitable catalyst" makes the oligomerization catalysts indefinite.

The argument that one of ordinary skill in the art will understand what types of adjustment may be made to an oligomerization process in response to the referenced signal when the claims are properly read in the context of the description is not persuasive since similarly

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there are many different parameters which affects to the processs and which do not affect to the same at all. These must be identified before they are used to adjust. Therefore, the claim is indefinite.

The argument of the indefiniteness of claim 13 is maintained since it is unclear what the first one is measured such as the size of the reactor or the size of the catalyst.

The argument that the Long patent is not a proper prior art is not persuasive since the priority date of the Long patent is offered by the patent office back to provisional application 60/146,632 which filed 6/30/1999 as shown on the first page of the patent.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuan D. Dang whose telephone number is 703-305-2658. The examiner can normally be reached on Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 703-308-6824. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Thuan D. Dang  
Primary Examiner  
Art Unit 1764

09705316.1<sup>st</sup>  
September 22, 2003

